## APPENDIX A

## **ISSUED PATENTS**

Rateur No.	The state of the s	Janyemor 4	Reel/Frame	Division Revision
5,381,054	Multiple input comparator circuit for a switched resistive network	Standley; David L	013699/0267	01/29/2003
5,440,079	Object-background discrimination using analog VLSI circuit	Mathur , et al.	013699/0267	01/29/2003
5,502.299	Current ratio circuit for multi-color imaging	Standley; David L.	013699/0267	01/29/2003
5,572,074	Compact photosensor circuit having automatic intensity range control	Standley; David L.	013699/0267	01/29/2003
5,572,643	Web browser with dynamic display of information objects during linking	Judson; David H.	011911/0220 (ZING)	06/19/2001
5;706,369	Base-n resolution converter	Wang , et al.	013699/0267	01/29/2003
5,892,540	Low noise amplifier for passive pixel CMOS imager	Kozlowski , et al.	013699/0267	01/29/2003
5,929,434	Ultra-low noise high bandwidth interface circuit for single-photon readout of photodetectors	Kozlowski , et al.	013699/0267	01/29/2003
5,932,875	Single piece integrated package and optical lid	Chung , et al.	013699/0267	01/29/2003
6,040,567	Method and device for controlling fast periodic motion	Neher , et al.	013496/0589	08/14/2002
6,153,955	Implementing comprehensive PID engine with single bit adder	Cheung , et al.	013496/0589	08/14/2002
6,256,350	Method and apparatus for low cost line-based video compression of digital video stream data	Bishay , et al.	013496/0589	08/14/2002
6,271,884	image flicker reduction with fluorescent lighting	Chung, et al.	013496/0589	08/14/2002

Patent N	r Pile	Inventor.	Red/Fran	THE STREET STREET
6,305,853	Camera utilizing film and reflective imager	Bishay, et al.	013496/058	
6,437,826		Amold: Thomas A		
6,441,453	Clear coating for digital an analog imagers		011805/086 (CONEXANT	)
6,441,857	Method and apparatus for horizontally scaling computer video data for display on a television	Wicker , et al.	013496/0589	08/14/2002
6,462,781	Foldable teleconferencing camera	Arnold; Thomas A.	013209/0732	08/22/2002
6,486,522	Light sensing system with high pixel fill factor	Bishay , et al.	013496/0589	08/14/2002
6,493,030	Low-noise active pixel sensor for imaging arrays with global reset	Kozlowski, et al.	013496/0589	08/14/2002
6,498,331	Method and apparatus for achieving uniform low dark current with CMOS photodiodes	Kozlowski , et al.	013496/0589	08/14/2002
6,507,364	Edge-dependent interpolation method for color reconstruction in image processing devices	Bishay , et al	012273/0217 (CONEXANT)	11/05/2001
6,532,040	Low-noise active-pixel sensor for imaging arrays with high speed row reset	Kozlowski , et al.	012273/0217 (CONEXANT)	11/05/2001
6,534,796	Integrated circuit optics assembly unit	Bishay , et al.	013496/0589	08/14/2002
6,535,247	Active pixel sensor with capacitoriess correlated double sampling	Kozlowski , et al.	013496/0589	08/14/2002
6,563,363	Switched capacitor comparator network	Tay; Hiok-Nam	013851/0225	03/17/2003
6,580,456	Programmable timing generator	Jacobs; William S.	009594/0366 (SIERRA IMAGING)	11/09/1998
6,587,142	Low-noise active-pixel sensor for imaging arrays with high speed row reset	Kozlowski, et al.	013496/0589	08/14/2002

Parti Si	Tue	Inventor	Reels Frame No.	Recordation
6,593,607	Image sensor with enhanced blue response and signal cross-talk suppression	Hseih; Blay-Cheng	013496/0589	08/14/2002
6,597,394	Programmable image transform processor for digital image processing	Duncan , et al.	009591/0524 (SIERRA IMAGING)	11/09/1998
6,617,562	CMOS imager with discharge path to suppress reset noise	Mann; Richard A.	011232/0239 (CONEXANT)	10/05/2000
6,639,204	Solid state color imager and method of manufacture	Mann; Richard A.	013851/0225	03/17/2003
6,677,996	Real time camera exposure control	Chung , et al.	013496/0589	08/14/2002
6,697,111	Compact low-noise active pixel sensor with progressive row reset	Kozlowski , et al.	013851/0225	03/17/2003
6,744,032	Arrangement of microlenses in a solid state image sensor for improving signal to noise ratio	Tay; Hiok-Nam	013851/0225	03/17/2003
6,617,562	CMOS imager with discharge path to suppress reset noise	Mann; Richard A.	011232/0239	10/05/2000

## PATENT APPLICATIONS

Appalle mini	Time st	never :		Propos Accombation
09/034,819	Method and apparatus for compensating for geometric distortion caused by a lensing system in a digital image detector	Pine, Joshua I.	010885/0931	06/02/2000
09/062,343	CMOS imaging apparatus	Ferry et al.		04/17/1998 (filed)

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Application	r i shile		Reel/Frame	A CONTRACTOR OF THE PARTY OF TH
10.			No	
09/268,913	Low noise CMOS active-	Kozlowski et al.		03/16/1999
1	pixel sensor for imaging			(filed)
	arrays with high speed	·		
	global or row reset	ļ., <u>., ., .</u>	04040000	00/44/0000
09/371,491	Imager with orientation	Pine, Josh I.	013496/0589	08/14/2002
20/105 555	correction capabilities	Dishaust of	<del>                                     </del>	9/28/1999
09/407,395	Color imager without filter	Bishay et al.		(filed)
09/407,501	An integrated camera	Bishay et al.	013496/0589	08/14/2002
09/40/,301	module	Distray et al.	01049070303	00/1-112002
09/407,556	Hybrid multiple sensor	Bishay et al.	013496/0589	08/14/2002
02/40/,230	device	Districty of all	010100/0000	00.11.2002
09/408,198	Infrared communication	Chung, Randall M.	013496/0589	08/14/2002
05/400,150	system utilizing receiver	0,10,19,712		
	with multiple photo-sensors	1	·	
09/410,210	Active pixel sensor with	Hseih, Biay-Cheng		09/30/1999
·	multiplexed photosensing		1	(filed)
	elements readout scheme			
09/538,889	Automatic gain control	Dong, Blake, M.	013496/0589	08/14/2002
	algorithm for pc-based	-		
	video camera		<u> </u>	
09/557,454	CMOS JFET amplified	Kozlowski et al.	013496/0589	08/14/2002
	pixel	<u> </u>		
09/672,987	Selectable resolution	Pine, Joshua I.	013496/0589	08/14/2002
	image capture system	Maland Objection	044478/0707	00/20/20/00
09/676,538	Combined digital image	Najand, Shahriar	011178/0767	09/29/2000
	across talk correction and		_	
00/676 661	interpolation NO FILE		·	
09/676,551 09/676,998	Exposure control in	Pine, Joshua I,	013496/0589	08/14/2002
09/0/0,996	electromechanical imaging	rine, justica i,	010490/0009	.00/ 1 <del>-1</del> /2002
	devices			
09/677,227	NO FILE	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
09/679,854	NO FILE			
09/680,036	NO FILE			
09/731,640	Imaging system for	Pine, Joshua I.	013496/0589	08/14/2002
•	minimizing pixel defects		1	
09/733,788	Enhanced resolution mode	Pine, Joshua I.	013496/0589	08/14/2002
1	using color image capture		!	
ļ	device		1	
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Application	in the second second	Inventor.	Reel/Frame	The state of the s
No.			No. 7s.	
09/742,786	Automatic detection and	Pine, Joshua I.	013496/0589	08/14/2002
•	correction of pixel defects			İ
	in solid state imagers			
09/795,033	imaging system having	Pine, Joshua I.	013496/0589	08/14/2002
	selectable interpolation			
	processing			
09/801,401	Imaging system having an	Pine, Joshua I.	013496/0589	08/14/2002
_	image memory between		1	Ì
	the functional processing		}	
	system			
09/815,584	Imaging system having	Pine, Joshua I.	013496/0589	08/14/2002
	adaptive clocking in			
	response to processing			
	state		ļ	
09/823,941	NO FILE		040400/0500	00/44/0000
09/852,397	Chip On Board (COB)	Tindle et al.	013496/0589	08/14/2002
	package for CMOS Imager			
09/882,576	NO FILE			
09/935,213	NO FILE	Mana Dishard A	013851/0225	03/17/2003
09/935,231	Semiconductor device for isolating a photodiode to	Mann, Richard A.	013851/0225	03/17/2003
	reduce junction leakage and			
	method of formation	· · · ·		٠
09/949,688	Off-grid interpolation in image	Bao et al.	013496/0589	08/14/2002
03/3/17,000	processing			
09/977,444	NO FILE			
10/016,713	Method and article of	Велсиуа, Selim S	014081/0620	05/16/2003
	manufacture for micro-lens			
ı	resulting from multi-stage			•
101057 577	fabrication technique.  NO FILE			
10/057,731		Dina Jackus I		10/25/2001
10/072,345	Imaging system combining	Pine, Joshua I	į	(filed)
	multiple still images for			(mea)
ļ	higher resolution image	•		
10/2020/0	output  Efficient implementation of	Pan, Shien-Tai	103022/0288	06/24/2002
10/102,042	a noise removal filter	· ·	10302210200	00)2412002
10/102,105	Image resolution	Bao et al.	<del></del>	03/20/2002
10/102,103	conversion using pixel	250 St Mt.	j	(filed)
	dropping			
10/102,410	NO FILE			
10/113,545	NO FILE			~
10/119,982	Tapered threshold reset	Kozlowski et al.	013851/0225	03/17/2003
	FET for CMOS imagers	1		

Application	Phile .		Reel/Frame	
10/136,268	NO FILE	Marie Control of the	M	EXECUTION OF THE PROPERTY OF T
10/136,413	Suppressing radiation charges from reaching dark signal sensor	Mann et al.	013851/0225	03/17/2003
10/293,510	Semiconductor device for isolating a photodiode to reduce junction leakage and method of formation	Mann, Richard A.	013851/0225	03/17/2003
60/376,690	NO FILE			
60/376,748	NO FILE			
60/376,750	NO FILE			
60/376 751	NO FILE			